

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N4424

NPN SILICON TRANSISTOR

JEDEC TO-92 (ECB) CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4424 type is a NPN Silicon Planar Epitaxial Transistor designed for general purpose amplifier applications.

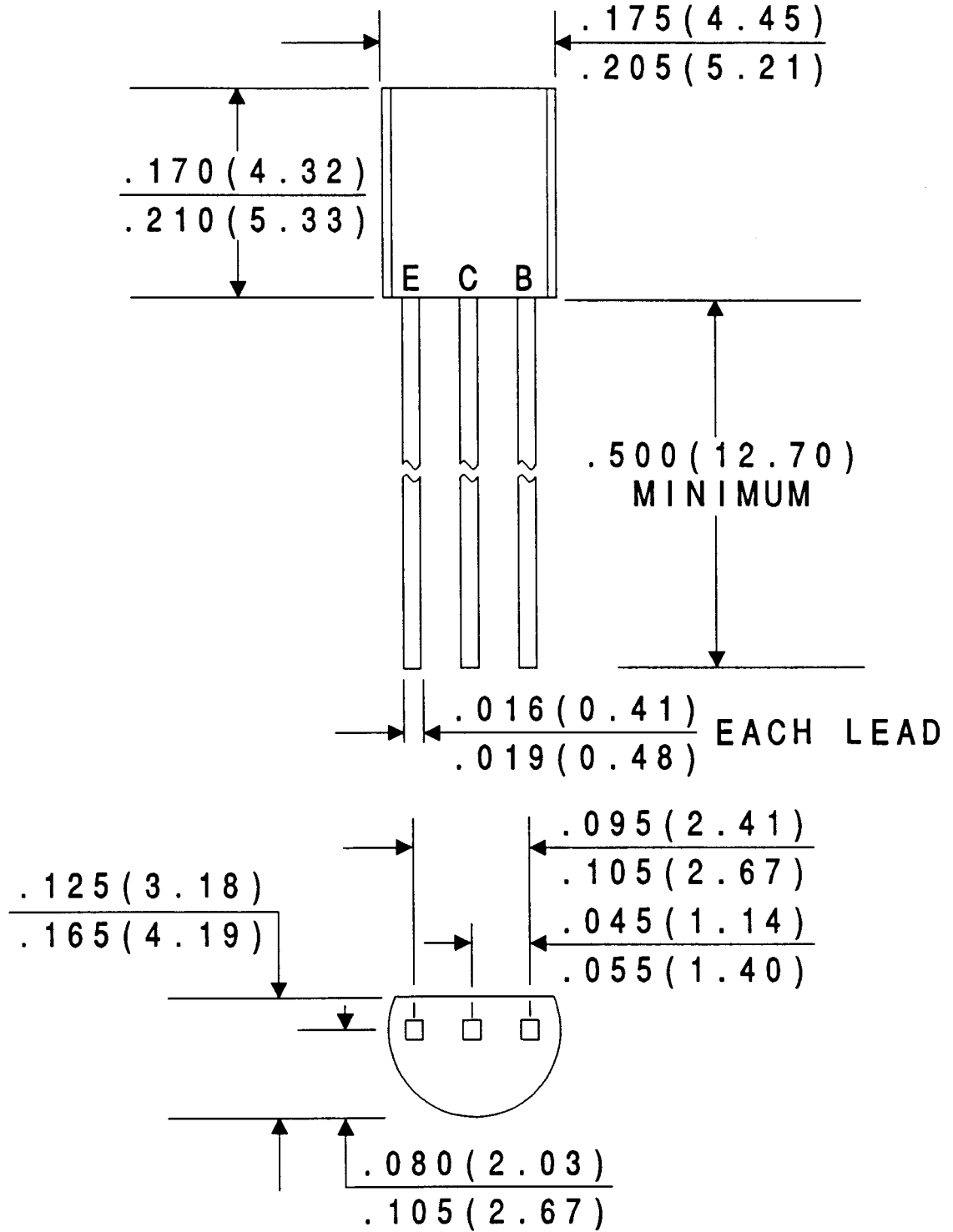
## MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CB0</sub>	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	V
Continuous Collector Current	I <sub>C</sub>	500	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	0.2	°C/mW

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CB0</sub>	V <sub>CB</sub> = 40V			30	nA
I <sub>CB0</sub>	V <sub>CB</sub> = 40V, T <sub>A</sub> = 100°C			10	μA
I <sub>CES</sub>	V <sub>CB</sub> = 40V			30	nA
I <sub>EBO</sub>	V <sub>EB</sub> = 5.0V			100	nA
BV <sub>CB0</sub>	I <sub>C</sub> = 10μA	60			V
BV <sub>CEO</sub>	I <sub>C</sub> = 10mA	40			V
BV <sub>EBO</sub>	I <sub>C</sub> = 0.1μA	5.0			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 3.0mA			0.30	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 3.0mA			0.85	V
h <sub>FE</sub>	V <sub>CE</sub> = 4.5V, I <sub>C</sub> = 2.0mA	180		540	
h <sub>fe</sub>	V <sub>CE</sub> = 4.5V, I <sub>C</sub> = 2.0mA, f = 1.0kHz	180			
h <sub>fe</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA, f = 1.0kHz		180		
h <sub>ie</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA, f = 1.0kHz		5100		Ω
h <sub>oe</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA, f = 1.0kHz		14		μmhos
h <sub>re</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA, f = 1.0kHz		0.27		X10 <sup>-3</sup>

JEDEC TO-92 - MECHANICAL DIMENSIONS



All Dimensions in Inches (mm).